



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Heart Seed Co., Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT OF 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

KENTUCKY BLUEGRASS

'Argyle'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 27th day of August in the year of our Lord one thousand nine hundred and eighty-one.

Attest:

[Signature]

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

[Signature]
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY ARGYLE CA-24		1b. VARIETY NAME ARGYLE 2/21/80		FOR OFFICIAL USE ONLY PV NUMBER 7900114	
2. KIND NAME KENTUCKY BLUEGRASS		3. GENUS AND SPECIES NAME POA PRATENSIS		FILING DATE 8-31-79	TIME 1:30 <u>P.M.</u>
4. FAMILY NAME (BOTANICAL) GRAMINEAE		5. DATE OF DETERMINATION 1972		FEE RECEIVED \$ 500.00 \$ 250.00	DATE 8-31-79 7-27-81
6. NAME OF APPLICANT(S) HEART SEED CO., INC.		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Box 133, Fairfield, Wash. 99012		8. TELEPHONE AREA CODE AND NUMBER 509-291-283-2433 3605	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Washington		11. DATE OF INCORPORATION 1969	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: Stan Rollin, 6802 Orem Drive, Laurel, MD. 20810					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☒ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?		
<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)			
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)			

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

August 27, 1979

(DATE)

Lawrence C. Apple

(SIGNATURE OF APPLICANT)

1

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

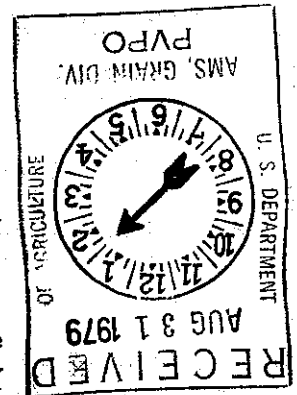
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.





HEART SEED CO., INC.

Quality Kentucky Bluegrass

P. O. Box 313

Fairfield, Washington 99012

L.D. 509 283-2433

Local 283-2322

EXHIBIT "A"

Origin and Breeding History of ARGYLE [CA-24] 6/16/81 [signature]

ARGYLE [CA-24] 6/17/81 [signature] was one of 26 selections taken from a forty acre seed producing field of *Poa Trivialis*. The seedstock for this *Poa Trivialis* field was produced in Western Europe prior to 1969. These selections were made in the Spring of 1970 and placed in an observation nursery.

In November of 1971 the [CA-24] 6/17/81 [signature] plant was divided into 59 separate pieces and transplanted to an isolation block for seed increase at Nezperce, Idaho. All breeders seed will come from these original fifty-nine plants. In 1972 this breeder block was harvested and a 2½ acre Foundation field was established. Seed from this field has since been harvested and planted for Certified Commercial production. In comparing the Breeder block, the 2½ acre Foundation field and the Certified production fields, it is obvious that [CA-24] 6/17/81 [signature] is at least 90% apomictic.

In November of 1971 a single plant observation planting was made to compare [CA-24] 6/17/81 [signature] with 17 other public and proprietary varieties. These single plants were spaced on three foot centers in order to determine comparative seed yielding potential and comparative rhizome development. ARGYLE [CA-24] 6/17/81 [signature] was the highest yielding and exhibited the most vigorous rhizome development. The other varieties in this test were: Merion, Baron, Sydsport, Victa, Pennstar, Nuggett, Fylking, Arboretum, Newport,

EXHIBIT "A" , page 2

Kenblue, Adelphi, Sodco, Prato, South Dakota, Poa Trivialis, Geronimo and Touchdown.

In the Spring of 1972 a turf planting was made to compare CA-24 with 8 other public and proprietary varieties. *Argyle 88 6/17/81*
These turf plots were 4' X 8' in size. Seed was also sent to Dr. R. D. Ensign at the University of Idaho for turf testing. Seed has since been sent to various Universities in the United States for evaluation.

In three generations of production approximately five percent of the plants appeared to be variants which were identified as follows:

1. Finer leaf and thicker leaf population.
2. Shorter plant and smaller seed heads.
3. Darker Blue-Green color.



HEART SEED CO., INC.

Quality Kentucky Bluegrass
P. O. Box 313
Fairfield, Washington 99012

509 291-3605
L.D. ~~503-283-243X~~
Local 283-2322

Application No. 7900114

June 10, 1981

Exhibit B (Amended)

ARGYLE Kentucky Bluegrass most closely resembles
DELTA Kentucky Bluegrass however they differ as
follows

CHARACTERS

ARGYLE

DELTA

Leaf sheath color

Green

Red

Leaf sheath margin

Rough

Smooth

Phenol reaction

Beige

Black

HEART SEED CO., INC.

Clarence C. Argyle
CLARENCE C. ARGYLE

OBJECTIVE DESCRIPTION OF VARIETY
BLUEGRASS (POA SPP.)

NAME OF APPLICANT(S) HEART SEED CO., INC.	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O. BOX 313 Fairfield, Wn. 99012	PVPO NUMBER 7900114
	VARIETY NAME OR TEMPORARY DESIGNATION ARGYLE <i>CA-24</i> <i>2/21/80 JSH</i>

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (e.g. or) when number is either 99 or less or 9 or less.

1. KIND:

1 = POA COMPRESSA 2 = P. PRATENSIS 3 = P. TRIVIALIS 4 = OTHER (Specify) **Shows some Poa Trivialis characteristics.**

2. REGION OF BEST ADAPTATION:

1 = NORTHEAST 2 = TRANSITIONAL ZONE 3 = NORTH CENTRAL 4 = PACIFIC N.W. 5 = OTHER (Specify) **Testing in other areas.**

3. MATURITY (At First Anthesis):

1 = EARLY (Delta) 2 = MEDIUM EARLY (Fylking) 3 = MEDIUM (Newport) 4 = LATE (Merion)

<input type="text" value="7"/> NUMBER OF DAYS EARLIER THAN.....	<input type="text" value="6"/>	} 1 = NUGGET 2 = FYLKING 3 = DELTA 4 = MERION 5 = NEWPORT 6 = BARON
<input type="text" value="2"/> NUMBER OF DAYS LATER THAN Kenblue	<input type="text"/>	

4. PLANT HEIGHT (Longest Shoot from Soil Surface to Top of Head):

<input type="text" value="8"/> <input type="text" value="2"/> CM. HEIGHT	} 1 = NUGGET 2 = FYLKING 3 = DELTA 4 = MERION 5 = NEWPORT 6 = BARON	
<input type="text"/> <input type="text"/> CM. SHORTER THAN.....		<input type="text" value="0"/>
<input type="text" value="3"/> <input type="text" value="1"/> CM. TALLER THAN.....		<input type="text" value="6"/>

5. HABIT:

1 = PROSTRATE (Fylking) 2 = SEMI-PROSTRATE (Merion)
3 = ERECT (Delta)

6. VEGETATIVE REPRODUCTION (1 = Absent; 2 = Present):

RHIZOMES STOLONS **Very shallow rhizomes**

7. LEAF BLADE:

Color: 1 = LIGHT GREEN (Rough Bluegrass) 2 = BLUE GREEN (Canada Bluegrass) 3 = MODERATELY DARK GREEN (Merion)
4 = DARK GREEN (Adelphi) 5 = OTHER (Specify)

Upper Surface: 1 = SHINY 2 = DULL Lower Surface: 1 = SHINY 2 = DULL

MM. WIDTH **Varies with mowing height and season** MM. LENGTH **Varies with daylength**

8. LEAF SHEATH (Base):

Seedling Color: 1 = GREEN 2 = RED MM. LENGTH Keel: 1 = NOT KEELED 2 = KEELED

Surface:

1 = GLABROUS 2 = PUBESCENT 1 = SMOOTH 2 = ROUGH 1 = NON-GLAUCOUS 2 = GLAUCOUS

9. LEAFINESS (At First Anthesis):

Number of leaves per tiller or shoot: 1 = FEW (1 - 3) 2 = INTERMEDIATE (4 - 6) 3 = MANY (More than 6)

10. PANICLE:

MM. LENGTH

<input type="text" value="1"/> <input type="text" value="0"/> <input type="text" value="0"/> MM. LONGER THAN.....	<input type="text" value="6"/>	} 1 = NUGGET 2 = FYLKING 3 = DELTA 4 = MERION 5 = NEWPORT 6 = BARON
<input type="text"/> <input type="text"/> <input type="text"/> MM. SHORTER THAN.....	<input type="text" value="0"/>	

7900114

ARGYLE CA-24

2/21/80
JH/K

FORM GR-470-18 (Reverse)

10. PANICLE (Cont.):

NUMBER OF PANICLES PER PLANT

MILLIGRAMS SEED PER PANICLE

Branches LOWEST WHORL: 1 = DROOPING (Prato) 2 = HORIZONTAL (Merion) 3 = OTHER (Specify) _____

Panicle Habit: 1 = NODDING (Newport) 2 = UPRIGHT (Nugget)

MM. SPIKELET LENGTH

11. LEMMA

KEEL

LATERAL NERVES

1 = GLABROUS 2 = SLIGHTLY PUBESCENT 3 = PUBESCENT 4 = OTHER (Specify) _____

Intermediate Nerves:

1 = DISTINCT

2 = OBSCURE

Basal Webbing:

1 = NONE

2 = SCANT

3 = COPIOUS

12. SEED:

Apomictin Percentage: 1 = MORE THAN 95 2 = 85 TO 95 3 = LESS THAN 85

Phenol Reaction:

1 = NONE - LEMMA REMOVED (Merion)

2 = BEIGE (Cougar)

3 = BROWN (Windsor)

4 = BLACK (Delta - 2 hours) 5 = BLACK (Anheuser - 24 hours)

MM. WIDTH

MM. LENGTH

GRAMS PER
10,000 SEEDS

CHROMOSOME NO. (2n)

13. TURF DENSITY MAINTENANCE AT ONE INCH CUT:

1 = POOR 2 = MODERATE (Merion) 3 = SUPERIOR (Nugget) 4 = EXCELLENT

14. VERTICAL GROWTH RATE:

1 = SLOW (Nugget) 2 = MEDIUM (Merion) 3 = FAST (Delta) 4 = OTHER (Specify relation to a standard) _____

15. SPRING GREEN UP:

1 = EARLY (Windsor) 2 = MEDIUM (Fylking) 3 = LATE (Nugget)

16. FALL DORMANCY: (1 = Not Dormant; 2 = Intermediate; 3 = Dormant)

NORTHERN (42° 30' ± 30' Lat.)

INTERMEDIATE (40° ± 30' Lat.)

SOUTHERN (37° 30' ± 30' Lat.)

17. SEEDLING VIGOR (Growth Rate):

Seedling: 1 = SLOW 2 = MEDIUM 3 = FAST

18. ENVIRONMENTAL RESISTANCE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

COOL TEMPERATURE
(Winter color)

COLD (Injury)

HEAT

DROUGHT

SHADE

POOR FERTILITY

ACID SOIL

ALKALINITY

SALINITY

SOIL COMPACTION

POOR DRAINAGE

AIR POLLUTION

OTHER (Specify) _____

19. DISEASE, INSECTS, AND NEMATODE RESISTANCE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

HELMINTHOSPORIUM
VAGANS

H. SOROKINIANUM

H. DICTYOIDES

RHIZOCTONIA SOLANI

ERYSIPHE GRAMINIS

USTILAGO STRIIFORMIS

FUSARIUM NIVALE

E. ROSEUM

TYPHULA IOTANA

SCLEROTINIA
HOMEOPARPA

PUCCINIA GRAMINIA

P. STRIIFORMIS

PYTHIUM ULTIMATUM

CRAMBUS
BONIFATELLUS

OTHER (Specify) _____

REFERENCE

Nickerson's or any recognized color fan may be used to determine plant colors of the described variety.



7900114

HEART SEED CO., INC.

Quality Kentucky Bluegrass

P. O. Box 313

Fairfield, Washington 99012

L.D. 509283-2433

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ARGYLE [CA-24] 6/16/81

EXHIBIT "D"

ADDITIONAL

~~REMARKS~~ Description of ARGYLE [CA-24] 6/16/81

ARGYLE [CA-24] Kentucky Bluegrass produces a moderately

low-growing turf with a dark green color, good density and a medium coarse texture. The original plant, selected from a forty acre seed producing field of *Poa Trivialis*, exhibits basic *Poa Pratenses* characteristics, but also shows some characteristics of *Poa Trivialis*. It spreads vigorously by deep and shallow rhizomes which at times, are more like creeping runners that root at a 2" to 4" distance from the parent plant (photo 1). The culm and base leaf on a mature plant are rough to the touch. The nodes are very similar to *Trivialis*. The seeds resemble *Poa Pratensis*, but the spikelets resemble *Poa Trivialis* (letter 1).

[CA-24] is a tall, large headed, nodding panicle that produces a high yield of seed (photo 1, 2 & table 1).

It has a rounded ligule, an average length of 14.16 cm and an average width of 4.48 mm (table 2).

Germination on [CA-24] is very rapid and seedling vigour is excellent (letter 2). Shade tolerance is equal to or superior to Red Creeping Fescue (letter 5). It has shown

EXHIBIT "D" , page 2

no susceptibility to Snow Mold or Powdery Mildew, but
is susceptible to Helminthosporium and Leaf Rust (letter
3 & University of Idaho Turf Trials).

Argyle DWR 4/7/81
[CA-24] has a very distinct Stoma pattern and count
(photo 3). The Chromosome count is between 30 & 56 (
letter 3, 4 & table 3).